LIST OF FIGURES

Figure 1.	Qualification status of TOUGH2 related software
Figure 2.	Relationship of TOUGH, TOUGH2 (and modules) and ITOUGH2 to the MULKOM architecture
Figure 3.	Structure of TOUGH2 single-phase gas (EOS1G) and saturated/unsaturated flow (EOS9) modules
Figure 4.	Summary of single-phase gas module program units and version history
Figure 5.	Structure of T2R3D:TOUGH2 radionuclide transport module 13-14
Figure 6.	Summary of radionuclide transport module program units and version history
Figure 7.	Schematic of spacial averaging scheme for velocity fields in the integral finite differences method
Figure 8.	Time dependent pressures for the boundary condition data input table to TOUGH2 and the TOUGH2 simulated boundary pressures
Figure 9.	Time dependent pressures for the TOUGH2 simulations using the EOS3 module and the single-phase gas module (EOS1G) 36
Figure 10.	One-dimensional vertical grid for the unsaturated zone of Yucca Mountain used for the ECM comparison study
Figure 11.	Steady-state liquid saturation profiles for fractures and matrix, obtained using the ECM and the dual-permeability models
Figure 12.	Comparison of the simulated liquid saturation profiles using the ECM and the dual-perneability modelsf with reduciton of fracture-matrix interface areas
Figure 13.	Liquid saturation profiles for TOUGH2 verification problem 1, using EOS9 and EOS3 and harmonic-mean interface weighting of mobilities
Figure 14.	Comparison of the normalized radionuclide concentrations along the rock column from the T2R3D and analytical solution
Figure 15.	Schematic of the 2-D model domain for the two-dimensional radionuclide transport problem showing the velocity field and three cross sections for comparisons of the simulation results
Figure 16.	Comparison of radionuclide concentration profiles along cross section (A-A') for analytical and numerical solutions at t=20 days

Figure	cross section (B-B') for anal	concentration profiles along ytical and numerical solutions	45
Figure	cross section (C-C') for anal	concentration profiles along ytical and numerical solutions	45
Figure		metry data in the integral	57
Figure	20. Input file for sample problem	n 1 - EOS1G demonstration	60
Figure	21. Selected output for sample p	problem 1 - EOS1G demonstration	61
Figure	22. Input file for sample probler	m 2 - ECM demonstration	65
Figure	23. Selected output for sample p	problem 2	65
Figure	24. Input file for sample problem	m 3 - EOS9 demonstration	66-67
Figure	25. Selected output for sample p	problem 3	68
Figure	26. Input file for sample probler	n 4 - T2R3D demonstration	69
Figure	27. Selected output for sample p	problem 4	70
LIST OF TAB	LES		
Table 1		and saturated/unsaturated	8
Table 2		odule for Two-Phase Flow	14
Table 3	. Primary Thermodynamic Va	uriables	18
Table 4	. Summary of EOS1G		27
Table 5	. Summary of EOS9		28
Table 6	. Summary of EOSR3D		29
Table 7	. Summary of Validation Prob	olems for TOUGH2 Modules	34
Table 8		are and spacing data used for on et al., 1994).	37
Table 9		x and fractures used in	38
Table 1	0. Requirements Validation Cr	oss-Check	47-48